

SEP 16 1999

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September 15, 1999

Mr. Lester Snow - Executive Director
Att. Mr. Rick Breitenbach:
c/o CalFed Bay-Delta Program
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

Dear Mr. Snow:

These are my comments on the Draft Programmatic Environmental Impact Statement / Environmental Impact Report on the CALFED Bay-Delta Program, June 1999. Please enter these comments into the formal record of this proposed action.

I believe that any water use and management plan must have as its priority greater protection of stream flows. This is necessary to conserve, and restore public trust interests and beneficial uses of the State's lakes streams, rivers and estuarine ecosystems.

Some specific concerns

CALFED was supposed to develop a comprehensive plan to restore the Bay-Delta Estuary, its many resources, uses and values. However CALFED reports have an underlying thread that northern California (Sacramento Basin) has a large surplus of water. Has CALFED conducted a study based on today's public trust laws, courts decisions, to determine Sacramento Valley - Delta agricultural, urban and environmental water needs, including that necessary to meet Delta water quality and outflow standards? The CALFED study appears to have ignored the local and regional needs in favor of export demands. It appears that when Northern Californians need that water for urban, agricultural uses, environmental needs, including that to restore the fisheries and water quality of area of origin streams and rivers, Northern Californians will learn that corporate agriculture, as it has developed in the San Joaquin Valley, has assured long term contracts to that water. At that time Northern Californians will have to buy the water, at astronomical prices or fight among themselves over the Wild and Scenic Rivers for their needed water. Interestingly, according to *Audubon* there is no compensation required for the taking of water needed to restore or protect resources, uses or interests covered by the public trust doctrine.

The CALFED proposal is heavily dependent upon new facilities to store and convey water from northern California to the thirsty semi-desert soils of the southern and western San Joaquin Valley. I believe that no additional storage facilities should be approved until Federal, State and local water agencies fully implement effective demand management, water conservation, and water use efficiency practices for all agricultural and urban water users. RESTORATION BEFORE CONCRETE. In addition any new storage should be paid for by the beneficiaries of that water not the environment or the taxpayer. The costs of new water has been estimated at \$500 to \$3,500 per acre foot. Investments in water conservation, in its many forms can bring in real water at a far cheaper cost than more concrete for a dam. CALFED aims to conserve about 3 percent of the water used by agriculture while innovative programs show savings as high as 25 percent. Waste discharges are also greatly reduced under such innovative programs of better more efficient use of the total water resource.

The Central Valley is the largest user of developed surface and groundwater in the State. Yet there are hundreds of thousands of acres that do not meet the criteria of good agricultural soils. A long growing season, cheap or subsidized water and agricultural chemicals all combine to produce a crop. Long term impacts to the soil downslope or downstream ecosystem appear to be of little concern. The San Joaquin River has been changed from a calcium-sodium bicarbonate type, suitable for all beneficial uses to one continuously degraded by drainage containing trace elements and a variety of salts, irrigation wastewater, to one of a sodium- sulfate -chloride type which adversely affects many of the private and public beneficial uses of water not the least of which is the renewability of the basin's fish and other aquatic resources covered by public trust protection. Every effort must be made to implement water quality goals as standards and enforced accordingly.

The best or prime farmlands are those lands having the best combination of physical, chemical and biological features for the production of agricultural crops. Soils known to have trace element, salt problems or drainage problems should not be irrigated except under very restricted conditions and some should not be irrigated at all. Taking selenium laden soils out of irrigation production (at least 500,000 acres) would save about 2.0 to 2.5 acre feet per acre and greatly reduce the drainage / salt / selenium burden on the San Joaquin River and Delta. About 1 to 1.25 MAF so conserved could be (half) to assure a reliable supply for the best soils, with the remainder used to restore resource renewability and water quality to the waters of our rivers, streams and the Delta.

Based on page 10 Revised Phase II Report, Delta inflow is 24 MAF, based on simulated historical hydrology, but with existing storage and conveyance in place. What is the Delta outflow under the same scenario? Is the 5.9 MAF of the Delta inflow that is presently exported a part of the Delta inflow figure of 24 MAF? If so, then is the actual outflow, $24 \text{ MAF} - 5.9 \text{ MAF} = 18.1 \text{ MAF}$. Is this correct? DWR 1987 estimated Delta inflow at 29.580 MAF and an outflow of 28.389 MAF. The difference being in-Delta use. The reduction to 18.1 MAF Delta outflow is about 63 to 64 percent of the unimpaired Delta outflow.

The understanding one gets from the literature regarding estuaries and estuarine management, is that when more than 30 to 35 percent of the flows are diverted from an estuary, the productivity of that estuary, its resources and the renewability those resources are severely impacted; water quality is drastically reduced and there are a significant impacts to many beneficial uses of that estuary. From a look at the data, water exports and instream depletions already are about 35 percent in normal runoff years and far exceed that during years of dryer than normal runoff.

According to recent agricultural information, alfalfa uses about 25 percent of the State's developed water. This crop however produces less than 5 percent of agricultural revenues. In a water short situation irrigated pasture / alfalfa is not an example of a prudent use of water in the arid and semi-desert climate.

How much of Delta inflow is the result of drainage from groundwater derived supplies and how much is drainage resulting from surface water imported to the San Joaquin Basin ?

Regarding water quality how much of the San Joaquin Rivers water quality / salt / sediment / selenium trace element problems are the result of or caused by imported irrigation supplies to irrigate the westside of the San Joaquin Valley ?

Through demand management, the more existing water supplies can be stretched through more efficient use, reuse, reclamation, and reduction of waste in a wide range of economic activities including product, services, agricultural crops and manufactured foods and electrical energy, the more likely instream resources, uses and values can be conserved and protected and their restoration potential realized.

The 4 alternatives presented all require up to 3 MAF of surface or groundwater storage; up to 2. MAF of near Delta or south Delta storage and up to 500 TAF of surface storage and 500 TAF of groundwater storage in the San Joaquin Valley. The BIG issue is going through the Delta via a modified waterways system to convey northern California and Sacramento River water to the thirsty pumps in the south Delta. Already according to the CALFED Priorities for FFY 2000, CALFED needs to make definitive progress regarding south Delta and North Delta water management improvements, i.e. to move more Sacramento River water to the export pumps. All this is before the Public's comments are in. Isn't this putting the peripheral canal cart before the horse? This is not a good way for CALFED to start developing a comprehensive plan to restore the Bay-Delta Estuary, its many resources, uses and values.

Support and Discussion of Additional Concerns

California Court in National Audubon Society v. Department of Water and Power, City of Los Angeles (33 Cal 3d 419, 658 P 2d 709 -1983) (Audubon) stated that the public trust is more than affirmation of State's power to use public property for public purposes. It is an affirmation of the duty of the State to protect the people's common heritage of streams, lakes, marshlands and tidelands surrendering that right of protection in rare cases when abandonment of that right is consistent with purposes of the trust.

In United States v. State Water Resources Control Board (227 Cal Rptr. 161 (Cal. App 1 Dist. -1986 also called Racanelli), the California Court re-emphasized much of the past rulings of the California Supreme Court regarding the State's public trust responsibilities. This ruling also clarified other things. For example, (1) All water rights are subject to government regulation and continuing authority; (2) The State Board must provide reasonable protection for all beneficial uses of water (protect public trust interests), not just those uses covered by water rights allocation; and (3) the State Board must take a global look at the entire Central Valley water allocation (all tributaries to the Delta) and all uses of water uses up stream of the Delta.

I endorse the meaning of public trust protection as described in Audubon and the findings and instructions of Racanelli. I also believes that the core of the public trust doctrine is that the State must administer its trust interests consistent with trust purposes and values. The duties imposed upon the State are those of a trustee and not those of a business manager trying to cut a deal. The key to carrying out the public trust duties are the powers to regulate as well as the powers to protect the State's fundamental rights in trust properties and the public use of those properties.

Water Conservation

I believe that any water use and management program should have as a core policy maximum water conservation. That policy should include at least the following:

1. Conserving the natural water supply. This includes the integrity of that water supply and the resources, uses and values associated with that water source (both surface and ground water).
2. Conserving the quality of that water supply - this includes protecting that water supply against man-made and natural adverse impacts such as silt, salts, trace elements, chemical, temperature, etc.
3. Conserving, protecting and restoring water quality to provide for the greatest re-use capabilities. Such a program should strive for the greatest diversity of beneficial uses that are consistent with or that protect water quality.

Stretching the water supply depends on (1) how the water is used, (2) where the water is used, (3) what it is used for, (4) how the water interfaces with natural and man induced additives and (5) the reclamation costs to restore water quality for its reuse or disposal to meet water quality standards to protect social, economic, natural resource, products, uses and values. The more water quality is protected the greater the capability for water reuse, thereby increasing the available water supply for all uses.

The more existing water supplies can be stretched through demand management, efficient use, reuse, reclamation, and reduction of waste in a wide range of economic activities, the more likely instream resources, uses and values can be conserved and protected and their restoration potential realized.

I believe that the present Evapo-Transpiration (E-T) calculations are an out dated measure of irrigation efficiency. Changes in irrigation practices, i.e sprinkler irrigation, drip irrigation, underground watering systems have made great strides in getting the needed water to the respective crops. What is the real transpiration of a crop under such conditions compared to flood or row irrigation? Supplemental irrigation water should be measured by the acre inch not by the acre-foot. When the supplemental / imported water is the only real water supply, or supplies more than half of the needed water, I believe that it is poor water management and therefore not in the State's nor public interest to continue such export.

All agricultural water rights and water contracts should be reviewed and evaluated for their "economic" or "allocation" efficiency. This review should go beyond the traditional evaluation of "irrigation efficiency". This evaluation should include the contractor's, applicant's or licensee's obligation to protect and conserve (for present and future generations), all instream or in place beneficial uses of water, water quality and the renewability of fish and wildlife populations dependent upon such waters as an ecosystem. It should include using water to protect and enhance non-dollar as well as dollar values of instream uses. This would include both regional and statewide concerns for non-dollar values of the beneficial uses of instream or in place water. It would include meeting water needs at the least cost over time. The areas of origin, their resources and their long-term

social, economic and environmental interests should be given priority. It should include using water for beneficial uses to help support reasonable economic stability in the areas of origin not just the export area.

Ecosystem Restoration / Instream Flows

I believe that CALFED should implement a policy that instream uses are to receive priority in all water use determinations. In addition certain levels of the historic natural flows should be reserved for non-consumption instream uses such as ecosystem maintenance and resources renewability. Such flows should be considered essentially "inviolable", as common property owned by all the people and generations yet born. The concept of "inviolability" should be adopted as the guiding policy for protecting instream flows, associated resources and ecosystems. The Judge Hodge physical solution / decision in Environmental Defense Fund (EDF) v East Bay Municipal Utility District (EBMUD) Sup. Ct. Alameda County No. 425955, January -1990 is that level of protection for the Lower American River.

Exclusive of the Lower American River (the Hodge decision of EDF v EBMUD - 1990), no other instream flow standards have been developed by CALFED under public trust principles for other Central Valley rivers and streams. Most of the stream flow release schedules have been dictated by strong stakeholders or negotiated to protect diverters' interests and approved by State and Federal trustees under political orders (i.e. the EBMUD / CDFG / FWS settlement for the FERC license to EBMUD for its Mokelumne River projects) .

Groundwater

Areas of critical groundwater overdraft should have groundwater management programs as rapidly as possible. In the past overdrafting the groundwater was used as justification for bringing in cheap / subsidized water. All too often the result was continued overdrafting of the same groundwater pool and expanded acreage under irrigation.

The policy of "inviolability" of streamflows should be firmly in place before conjunctive use (surface and ground water) can become a viable management tool without harming instream trust interests, uses and values. Demand management and other conservation practices must be in place before a conjunctive use effort is implemented.

Water Quality

Water quality goals should be equal to standards. In addition all discharges should be consistent with the preservation of the maximum public benefit, (resources, uses and values) of the receiving waters. If existing water quality exceeds the water quality objective, the existing quality should be recognized as the standard. Any justification to reduce water quality to a lesser standard must be demonstrated to be in the public interest, consistent with public resources, uses and values of the receiving waters protected by the public trust doctrine, not for the convenience of a discharger.

Pollution must be controlled at its source. It is also important that all discharges be monitored to quantify the amount of variance between the waste discharge standard (timing, temperature or chemical parameters) and what actually happens. The concept of Total Maximum Daily Loading (TMDL) plays on the idea that the regulators can control a little bit of pollution and its multi-faceted or synergistic impacts. That is like controlling a pregnancy after conception. To control either will take draconian efforts.

Reservoir Operations

The provisions of Title 23, Section 782 of the California Administrative Code, the Fish and Game Code Section 5937 and the State Board Term 69 to "at all times -- allow sufficient water to pass downstream to keep in good condition any fish that may be planted or exist below the dam" are important expressions by the State for protecting the public's fish trust.

As discussed in Cal Trout v State Water Resources Control Board (207 Cal App. 3d 585 - 1989), the effect of Fish and Game Code Section 5937 is to limit the amount of water that may be appropriated or extracted from a river or stream, by requiring that sufficient water first be released to provide habitat conditions to assure that fish and other aquatic life below the dam are maintained in good condition.

The "in good condition" criteria must include the health and renewability of the entire aquatic ecosystem and its component parts. From a public trust prospective, it includes the physical (water, stream bed and shore lands), biological (flora and fauna), and the chemical parameters (water quality) that are necessary to support self-maintaining or renewing fish populations, aquatic life and ecological values and other beneficial uses. Fish and Game Code Section 45 defines "fish" as wild fish, mollusks, crustaceans, invertebrates, or amphibians, including any part, spawn or ova thereof."

The guiding principles of "good condition" are discussed in Cal Trout v State Water Resources Control Board. It includes 1) the health of individuals, i.e. fish are healthy, free of disease, parasites, etc, and have reasonable growth rates with adequate habitat; 2) diversity and abundance of aquatic populations, diversity of age class, sufficient habitat to support all life stages and support self-sustaining populations; 3) the community, its overall health including co-evolved species and the health of the aquatic ecosystem at several trophic levels. The criteria in "good condition" has been included in some State Board staff reports and Orders. (See Bear Creek - SWRCB Order 95-4 at 18 to 22, 1995; Putah Creek v. Solano Irrigation District, Sacramento Superior Court No. CV515766, April 1996; State Board Order WR 95-17, Lagunitas Creek, October 1995.

Larger minimum pools are needed in most reservoirs and particularly those over 100,000 acre-feet capacity. A properly sized minimum pool could increase the effectiveness of any temperature control facility needed to help provide a cold water release regimen necessary to propagate, conserve and protect anadromous fishes such as Chinook salmon, steelhead and resident trout. The need for temperature control facility should be undertaken at the major reservoirs in the Central Valley. In addition such a pool would provide a water source during public health emergencies, to help buffer damage to environmental values and public trust interests during periods of less than normal runoff.

All reservoir owners and all diverters of water have a responsibility to conserve and protect instream flows, uses and values. All reservoir operations and attendant flow releases, to the maximum extent possible, should be consistent with instream ecosystem protection, resource renewability and resource restoration. The flow regimen released should strive for maximum long term instream benefits. Any release of stored water for transfer should be coordinated to maximize the ecological values and biological resources and uses protected by the public trust.

All projects and all water right holders on all streams have a responsibility to contribute their Fair Ecological Share (FES) to protect, conserve and restore instream resources uses and values protected by the public trust. The meaning of "FES" is that every stream and every water right holder has an obligation to contribute its fair share of the water needed to provide the stream flows and environmental conditions necessary to preserve, restore, and protect trust resources and interests from a streams headwaters, through its length, to contribute to Delta inflow and Delta outflow (i.e. to the Pacific Ocean). If each project and water extraction activity contributed its FES to instream flows uses and values, the problems associated with protecting and restoring ecosystem renewability, aquatic resources, protecting wetlands and water quality would be greatly reduced. I believe that the Judge Hodge physical solution / decision in EDF v EBMUD -1990 is that level of protection for the Lower American River.

Integrated Farmland Soils and Water Management

The productivity of the State's best farmland soils should be protected against degradation. The best or prime farmlands being those lands having the best combination of physical, chemical and biological features for the production of agricultural crops (Federal Register. Vol. 3, No. 21, January 31, 1978). For example those soils known to have or contribute to the trace element, salt problems or drainage problems would not be irrigated except under very restricted conditions.

The management of the State's farmland soils and water resources should be based on ecological parameters and on the renewability of ecosystem components such as water, soil, vegetation, fish and wildlife. Capabilities and constraints of the land/soils would be balanced against the unreasonable use of water or unreasonable method of use. This should provide for greater efficiency of both the water and soil resources as well as protect downslope or downstream resources, uses, and values. A program should be formulated that integrates the land / soil capabilities and limitations with a conjunctive surface and groundwater management program as a pre-requisite for all lands receiving imported (out of basin) water.

Conclusion

The people now realize that each and every stream provides many benefits, uses and values free of charge as their waters flow to the ocean or other terminal body. Some CALFED member agencies, in the past, have been instrumental in watching streams dry up or their water become so contaminated with point and non-point discharges that they are unfit for most beneficial uses. CALFED now recognize that the cumulative impacts of both the construction and operation of the State's many water projects are having a major impact on ever diminishing resources.

The powers of the State as trustee include everything necessary to the execution and proper administration of the trust. See People v. California Fish Company (66 Cal 576, 138 Pacific 79 87, 88 - 1913) Long Beach v. Mansell (476 Pac. 2d 423, 3 Cal 3d 462-1970).

All the State has to have is the will to do it.

Sincerely,

A handwritten signature in cursive script, reading "Felix E. Smith". The signature is written in dark ink and is positioned above the typed name and address.

Felix E. Smith
4720 Talus Way
Carmichael, CA 95608
966-2081

cc: interested parties

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